

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application. Please amend claims 1, 4-5, and 16 and add new claims 18-21 as follows:

Listing of Claims

1. (Currently Amended) An autonomous robot apparatus which communicates with a communication apparatus by radio, which communicates with a user by non-radio communication and which independently determines an action in accordance with an instruction from [[a]] the user or a surrounding environment, the robot apparatus comprising:

measuring means for measuring a quality of communication of radio signals received from the communication apparatus;

determining means for determining the action on the basis of the communication quality measured by the measuring means and the instruction from the user; and

processing means for performing the action determined by the determining means,

wherein when the communication quality measured by the measuring means indicates loss of radio communication with the communication apparatus, the robot apparatus physically communicates the loss of radio communication to the user via non-radio communication and requests another instruction from the user.

2. (Original) The robot apparatus according to claim 1, wherein the determining means determines the action on the basis of the details of the current action of the robot apparatus and the communication quality measured by the measuring means.

3. (Original) The robot apparatus according to claim 1, wherein

3. (Original) The robot apparatus according to claim 1, wherein
the determining means determines the generation of predetermined speech, and
the processing means outputs the speech through a speaker.

4. (Currently Amended) A information processing method for an autonomous robot apparatus which communicates with a communication apparatus by radio, which communicates with a user by non-radio communication and which independently determines an action in accordance with an instruction from [[a]] the user or a surrounding environment, the method comprising the steps of:

a measuring step of measuring a quality of communication of radio signals received from the communication apparatus;

a determining step of determining the action on the basis of the communication quality measured in the measuring step and the instructions from the user; and

a processing step of performing the action determined in the determining step,

wherein when the communication quality measured in the measuring step indicates loss of radio communication with the communication apparatus, the robot apparatus physically communicates the loss of radio communication to the user via non-radio communication and requests another instruction from the user.

5. (Currently Amended) A computer readable medium having a program for an autonomous robot apparatus which communicates with a communication apparatus by radio, which communicates with a user by non-radio communication and which independently

determines an action in accordance with an instruction from [[a]] the user or a surrounding environment, the program allowing a computer to execute a process comprising the steps of:

a measuring step of measuring a quality of communication of radio signals received from the communication apparatus;

a determining step of determining the action on the basis of the communication quality measured in the measuring step and the instructions from the user; and

a processing step of performing the action determined in the determining step,

wherein when the communication quality measured in the measuring step indicates loss of radio communication with the communication apparatus, the robot apparatus physically communicates the loss of radio communication to the user via non-radio communication and requests another instruction from the user.

6. (Previously Presented) The robot apparatus according to claim 1, wherein the measured communication quality of the radio signals is measured for a predetermined time and for a predetermined threshold.

7. (Previously Presented) The robot apparatus according to claim 1, wherein the measuring means outputs state recognition information, based on the measured communication quality, to the determining means.

8. (Previously Presented) The robot apparatus according to claim 1, wherein the measured communication quality of received signals is supplied from sensors.

9. (Previously Presented) The robot apparatus according to claim 8, wherein the measuring means outputs state recognition information for the sensors, based on the measured communication quality, to the determining means.

10. (Previously Presented) The robot apparatus according to claim 8, wherein the sensors include a head sensor, foot bottom sensors, acceleration sensor, microphone and camera.

11. (Previously Presented) The robot apparatus according to claim 7, wherein the determining means determines a next action based on the state recognition information, previous state recognition information from a storage means and elapsed time.

12. (Previously Presented) The robot apparatus according to claim 9, wherein the determining means determines a next action based on the state recognition information, previous state recognition information from a storage means and elapsed time.

13. (Previously Presented) The robot apparatus according to claim 1, wherein the communication quality includes signal strength corresponding to resistance to noise or error rate in a communication packet due to burst interference.

14. (Previously Presented) The robot apparatus according to claim 1, wherein the robot apparatus notifies the user of the loss of radio communication using functions peculiar to the robot apparatus.

15. (Previously Presented) The robot apparatus according to claim 1, wherein the robot apparatus notifies the user of the loss of radio communication using speech.

16. (Currently Amended) The robot apparatus according to claim 1, wherein the robot apparatus notifies the user of the loss of radio communication via a gesture by movement of one of its bodily units.

17. (Previously Presented) The robot apparatus according to claim 1, wherein the robot apparatus is in standby state after notifying the user of the loss of radio communication until receiving an instruction from the user.

18. (New) The robot apparatus according to claim 1, wherein said communication apparatus communicates, via a network, with a household electrical appliance and a personal computer, and said robot controls the household electrical appliance and receives a command from the personal computer via the communication apparatus.

19. (New) The robot apparatus according to claim 1, wherein said robot apparatus is a biped walking humanoid robot including bodily units of a torso unit, head unit, arm units, leg units and an external sensor unit including a camera functioning as an eye, a microphone functioning as an ear and a speaker functioning as a mouth.

20. (New) The robot apparatus according to claim 19, wherein the user is notified of a state of communication between the communication apparatus and the robot apparatus via at least one of the bodily units and external sensor unit of the robot.

21. (New) An autonomous robot apparatus which communicates with a communication apparatus by radio, which communicates with a user by non-radio communication and which independently determines an action in accordance with an instruction from the user or a surrounding environment, the robot apparatus comprising:

measuring unit measuring a quality of communication of radio signals received from the communication apparatus;

determining unit determining the action on the basis of the communication quality measured by the measuring unit and the instruction from the user; and

processing unit performing the action determined by the determining unit,

wherein when the communication quality measured by the measuring unit indicates loss of radio communication with the communication apparatus, the robot apparatus physically communicates the loss of radio communication to the user via non-radio communication and requests another instruction from the user.